

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing
(day/month/year)

Applicant's or agent's file reference

PCT01-04050

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/JP2005/000934

International filing date (day/month/year)

19.01.2005

Priority date (day/month/year)

21.01.2004

International Patent Classification (IPC) or both national classification and IPC

Applicant

PIONEER CORPORATION

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP

Authorized officer

Facsimile No.

Telephone No.

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Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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Box No. IV Lack of unity of invention

1. ☐ In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has:
- ☒ paid additional fees
- ☐ paid additional fees under protest
- ☐ not paid additional fees
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
- ☐ complied with
- ☒ not complied with for the following reasons:

In order that a group of inventions described in the claims satisfies the requirement of unity of invention, the existence of a special technical feature which so links the group of inventions as to form a single general inventive concept is required, but the group of inventions described in claims 1-23 is considered to be linked merely in the matter of "a semiconductor device comprising a substrate, a semiconductor element formed on the substrate and a protective film for sealing the semiconductor element and further comprising a first conductive layer which is in contact with the back surface of the protective film and a second conductive layer which is in contact with the front surface of the protective film."

However, this matter cannot be a special technical feature as it is described in prior art document JP, 06-275741, A (Toppan Printing Co., Ltd.). Therefore, there is no special technical feature which so links the group of inventions described in claims 1-23 as to form a single general inventive concept. Consequently, it is clear that the group of inventions described in claims 1-23 does not satisfy the requirement of unity of invention.

Judging from specific embodiments of the subject matters of independent claims, seven inventions classified into claims 1-2, 3, 4, 5, 6-8, 9 and 10-23 are considered to be described in the claims of the present application.

4. Consequently, this opinion has been established in respect of the following parts of the international application:
- ☒ all parts
- ☐ the parts relating to claims Nos. _____

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Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	3-23	YES
	Claims	1, 2	NO
Inventive step (IS)	Claims	3-23	YES
	Claims	1, 2	NO
Industrial applicability (IA)	Claims	1-23	YES
	Claims		NO
2. Citations and explanations:			
<p>Documents cited in the ISR:</p> <p>Document 1: JP, 06-275741, A (Toppan Printing Co., Ltd.), 30 September, 1994 (30.09.94), paragraphs [0011]-[0022], Fig. 4</p> <p>Document 2: JP, 2003-303682, A (Pioneer Electronic Corp.), 24 October, 2003 (24.10.03), paragraphs [0012]-[0014], Fig. 2</p> <p>Document 3: JP, 2003-282241, A (Pioneer Electronic Corp.), 3 October, 2003 (03.10.03), full text, Figs. 1-10</p> <p>Document 4: JP, 2003-187963, A (Dainippon Printing Co., Ltd.), 4 July, 2003 (04.07.03), full text, Figs. 1-2</p> <p>Document 5: JP, 2002-314142, (Toyoda Gosei Co., Ltd.), 25 October, 2002 (25.10.02), paragraphs [0042]-[0057], Fig. 2</p> <p>Claims 1 and 2</p> <p>The subject matters of claims 1 and 2 do not appear to be novel or to involve an inventive step as paragraphs [0011]-[0022] and Fig. 4 of document 1 describe a semiconductor device comprising a substrate, a semiconductor element formed on the substrate and a protective film for sealing the semiconductor element and further comprising a first conductive layer which is in contact with the back surface of the protective film and a second conductive layer which is in contact with the front surface of the protective film.</p> <p>Claim 3</p> <p>Documents 2 and 3 describe an EL element which seals the electrode of the EL element by a protective film having moisture-proofness. Document 4 describes an EL element which seals an organic EL element with the use of a sealing base material consisting of a flexible film. Document 5 describes a light-emitting apparatus which forms a protective film on the electrode of the light-emitting device.</p> <p>It is neither disclosed in documents 1-6 nor obvious to a person skilled in the art that the semiconductor element of the subject matter of claim 3 includes an electrode layer which forms the outermost layer as a first conductive layer.</p> <p>Claim 4</p> <p>It is neither disclosed in documents 1-6 nor obvious to a person skilled in the art that at least one of a first conductive layer and a second conductive layer is formed in a stripe shape.</p> <p>Claim 5</p> <p>It is neither disclosed in documents 1-6 nor obvious to a person skilled in the art that a first</p>			

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Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

conductive layer and a second conductive layer are formed in a stripe shape so as to cross each other.

Claims 6-8

It is neither disclosed in documents 1-6 nor obvious to a person skilled in the art to comprise a first electrode terminal connected to the first conductive layer and a second electrode terminal connected to the second conductive layer.

Claim 9

Documents 2-4 describe that an organic EL element is sealed by a protective film, but it is not obvious to a person skilled in the art to apply the semiconductor sealing structure described in document 1 to the EL element described in documents 2-4.

Claims 10-23

A method of manufacturing a semiconductor device which detects defects of a protective film for sealing a semiconductor element formed on a substrate is neither disclosed in documents 1-6 nor obvious to a person skilled in the art.